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Applicant : Erwin MEINDERS
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Title: VISUAL CONTENT SIGNAL DISPLAY APPARATUS AND
A METHOD OF DISPLAYING A VISUAL CONTENT
SIGNAL THEREFOR

APPEAL BRIEF

U.S. Patent and Trademark Office
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Sir:

In response to the FINAL Office Action dated 19 June 2009, finally rejecting pending claims 1-16 and 19-22, and in support of the Notice of Appeal filed on 15 September 2009, Applicant hereby respectfully submits this Appeal Brief.

REAL PARTY IN INTEREST

Koninklijke Philips Electronics N.V. owns all of the rights in the above-identified U.S. patent application by virtue of an assignment recorded at 017578/0591.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences related to this application or to any

related application, nor will the disposition of this case affect, or be affected by, any other application directly or indirectly.

STATUS OF CLAIMS

Claims 17-18 are canceled.

Claims 1-16 and 19-22 are pending in the application.

Claims 1-16 and 19-22 all stand rejected.

Accordingly, the claims on appeal are claims 1-16 and 19-22.

STATUS OF AMENDMENTS

There are no pending amendments with respect to this application.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a display apparatus and a method of displaying a visual content signal.¹

Accordingly, as broadly recited in claim 1, a visual content signal display apparatus (FIG. 1 – element 100; page 7, lines 33-34) comprises: means (FIG. 1 – element 101; page 8, lines 1-8) for receiving a visual content signal; means (FIG. 1 – element 103; page 8, lines 9-15) for presenting the visual content signal on a primary display (FIG. 1 – element 103; page 8, lines 9-15); means (FIG. 1 – element 107; page 8, lines 16-20) for extracting background content information from the visual content signal; means (FIG. 1 – element 109; page 9, lines 7-12) for generating a surround image in response to the background content information; and means (FIG. 1 – element 111; page 9, lines 13-18) for displaying the surround image on a secondary display area thereby providing a combined display having an increased

¹ In the description to follow, citations to various reference numerals, figures, and corresponding text in the specification are provided solely to comply with Patent Office rules. It should be understood that these reference numerals, figures, and text are exemplary in nature, and not in any way limiting of the true scope of the claims. It would therefore be improper to import anything into any of the claims simply on the basis of **exemplary** language that is provided here only under the obligation to satisfy Patent Office rules for maintaining an Appeal.

viewing angle (page 10, lines 30-31).

As further featured in claim 5, the means for extracting is operable to extract the background content information in response to background meta-data comprised in the visual content signal (page 4, lines 14-22; page 8, lines 21-32).

As further featured in claim 6, the means for extracting is operable to extract the background content information in response to a content analysis of the visual content signal (page 4, lines 3-6; page 4, line 23 – page 5, line 9; page 8, lines 16-20; page 12, line 14 – page 14, line 2).

As further featured in claim 7, the content analysis comprises image object recognition (page 4, line 32 – page 5, line 2; page 13, lines 20-22).

As further featured in claim 8, the means for generating a surround image is operable to perform motion estimation of an image object and to generate the surround image in response to the motion estimation (page 5, lines 3-9; page 13, lines 23-28).

As further featured in claim 9, the background content information comprises a visual characteristic of an image section of the visual content signal proximal to an edge of the primary display; the means for generating the surround image is operable to generate at least a partial surround image having a corresponding visual characteristic; and the means for displaying the surround image is operable to display the partial surround image proximal to the edge (page 5, lines 10-15; page 10, lines 16-21).

As further featured in claim 10, the means for generating a surround image is operable to generate the surround image in response to a predetermined image associated with the background content information.

As further featured in claim 11, the means for generating the surround image is operable to generate the surround image in response to a predetermined default image if no valid background content information is determined.

As further featured in claim 15, wherein the apparatus further comprises means for determining a category of the visual content signal and wherein the means for generating the surround image is operable to generate the surround image processing in response to the category (page 6, lines 31 – page 7, line 5; page 12,

lines 16-32; page 13, lines 12-17; page 14, lines 21-28).

As broadly recited in claim 16, a method is provided for displaying a visual content signal with a visual content display apparatus (FIG. 1 – element 100; page 7, lines 33-34). The method comprises: receiving a visual content signal with a receiver (FIG. 1 – element 101; page 8, lines 1-8) of the apparatus; presenting the visual content signal on a primary display (FIG. 1 – element 105; page 8, lines 10-11; FIG. 2 – element 213; page 9, lines 25-26); extracting background content information from the visual content signal with an extraction processor (FIG. 1 – element 107; page 8, lines 16-20) of the apparatus; generating a surround image in response to the background content information with a secondary display processor (FIG. 1 – element 109; page 9, lines 7-12) of the apparatus; and displaying the surround image on a secondary display area (FIGs. 2-3, elements 203, 205, 207 and 211; page 10, lines 20-29) thereby providing a combined display having an increased viewing angle (page 10, lines 30-31).

As broadly recited in claim 19, a system comprises: a receiver (FIG. 1 – element 101; page 8, lines 1-8) for receiving a visual content signal; a primary display processor (FIG. 1 – element 103; page 8, lines 9-15) for processing the visual content signal and for providing an image for display on a primary display (FIG. 1 – element 105; page 8, lines 10-11; FIG. 2 – element 213; page 9, lines 25-26); an extraction processor (FIG. 1 – element 107; page 8, lines 16-20) for extracting background content information from the visual content signal; a second display processor (FIG. 1 – element 109; page 9, lines 7-12) for generating a surround image in response to the extracted background content information; and a secondary display (FIG. 1 – element 111) for displaying the surround image on a secondary display area (FIGs. 2-3, elements 203, 205, 207 and 211; page 10, lines 20-29) surrounding the primary display, wherein a combination of the image and the surround image provide a greater viewing angle than the image alone (page 10, lines 30-31).

As further featured in claim 20, the method comprises storing a plurality of images corresponding to a plurality of background content characteristics, and wherein generating a surround image in response to the background content

information includes selecting one of the stored images in response to the extracted background content information (page 5, lines 24-33; page 11, lines 12-18).

As further featured in claim 21, the system stores a plurality of images corresponding to a plurality of background content characteristics, and wherein the second display processor selects one of the stored images in response to the extracted background content information and generates the surround image from the selected stored image (page 5, lines 24-33; page 11, lines 12-18).

As further featured in claim 22, the system stores a plurality of images corresponding to a plurality of background content characteristics, and wherein the second display processor selects at least two of the stored images in response to the extracted background content information and generates the surround image from the at least two selected stored images (page 5, lines 24-33; page 11, lines 12-18).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on Appeal are: (1) the rejections of claims 1-6, 9-14, 16 and 19-22 under 35 U.S.C. § 103(a) over Baudisch U.S. Patent Publication 2002/0167531 ("Baudisch") in view of Taniguchi U.S. Patent 6,445,365 ("Taniguchi"); (2) the rejections of claims 7, 8 and 15 under 35 U.S.C. § 103 over Baudisch in view of Taniguchi and further in view of Witehira U.S. Patent 6,906,762 ("Witehira").

ARGUMENTS

(1) Claims 1-6, 9-14, 16 & 19-22 are Patentable over Baudisch and Taniguchi

At the outset, Applicant relies on at least the following standards with regard to proper rejections under 35 U.S.C. § 103(a). First, the Examiner must establish the level of ordinary skill in the art of the invention. M.P.E.P. §§ 2141(II)(C) and 2141.03. Also, a rejection on obviousness grounds under 35 U.S.C. § 103 cannot be sustained by mere conclusory statements: instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also KSR International Co. v. Teleflex Inc., 550 U.S. 398, 82 USPQ2d 1385, 1396 (2007)

(quoting Federal Circuit statement with approval). Furthermore, there must be a reasonable expectation of success. *“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art.”* MPEP § 2143.01(III) (citing KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007)). Finally, the prior art reference (or references when combined) must disclose all of the claim limitations. *“All words in a claim must be considered in judging the patentability of that claim against the prior art.”* MPEP § 2143.03 (citing In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)).

Claim 1

Among other things, the display apparatus of claim 1 includes: (1) means for presenting a visual content signal on a primary display; (2) means for extracting background content information from the visual content signal presented on a primary display; (3) means for generating a surround image in response to the extracted background content information; and (4) means for displaying the surround image on a secondary display area thereby providing a combined display having an increased viewing angle.

Applicant respectfully submits that no combination of the cited art would ever produce a display apparatus including this combination of features.

In particular, the cited references fail to teach or suggest an apparatus that displays on a secondary display a surround image that is generated from the (very same) visual content signal that is presented on a primary display.

Baudisch discloses a combined display (e.g., FIG. 11, FIGs. 15-16) which has a greater image resolution (increased pixel density) in a first display area (e.g., 140) than it has in a second display area (e.g., 130). However, Baudisch displays only the original visual content signal itself – split between primary display 140 at a high resolution, and secondary display 130 at a lower resolution. Baudisch does not generate any surround image.

More specifically, Baudisch does not display on its secondary “surround” display 130 a surround image that is generated from the (very same) visual content signal that is presented on the primary display 140. In that regard, it is noted that

Baudisch displays on its secondary display 130 video data generated from the original visual content signal provided to image fork 280. However, Baudisch's primary display 140 does not display the original visual content signal – it only displays a **portion of** the visual content signal, at a higher resolution (see, e.g., FIG. 2 and paragraph [0050], lines 14-16). So what Baudisch displays on the secondary display 130 is not generated from the visual content signal that is actually presented on primary display 140, as recited in claim 1. Instead, what Baudisch displays on secondary display 130 includes the “**leftover**” video data in the original visual content signal that is not presented on primary display 140! So, Baudisch does **not** display on secondary display 130 a surround image that was generated from information extracted from the same visual content signal that is actually presented on primary display 140 – as recited in claim 1.

Similarly, Taniguchi also does not display on its secondary “surround” display 2 / 2' a surround image generated from the visual content signal that is presented on the primary display 13 / 13'. In that regard, it is noted that Taniguchi displays on its secondary display 2 / 2' video data generated from the original visual content signal. However, it is also noted that, like Baudisch, Taniguchi's primary display 13 / 13' only displays **a portion of** the visual content signal at a higher resolution (see, e.g., FIGs. 3A-D, FIGs. 5A-D; FIGs. 6A-B; FIGs. 13A-C; col. 7, lines 63-67, etc. etc.). So what Taniguchi displays on the secondary display 2 / 2' is not generated from the visual content signal that is actually presented on primary display 13 / 13', as recited in claim 1. Instead, what Taniguchi displays on secondary display 2 / 2' includes the “**leftover**” video data in the original visual content signal that is not presented on primary display 13 / 13'! So, Taniguchi does **not** display on secondary display 2 / 2' a surround image that was generated from information extracted from the same visual content signal that is actually presented on primary display 13 / 13' – as recited in claim 1.

In summary, since neither Baudisch nor Taniguchi teaches or suggests displaying on a secondary display a surround image generated from the visual content signal that is presented on a primary display, no combination of the teachings

of Baudisch and Taniguchi could ever produce an apparatus that displays on a secondary display a surround image generated from the visual content signal that is presented on a primary display. Indeed, neither Baudisch nor Taniguchi teaches or suggests generating a surround signal from a visual content signal – all they are concerned with is dividing an original visual content signal into a first portion to be displayed at a high resolution, and a second portion to be displayed at a lower resolution. But all that they ever display is the original visual content signal itself. Therefore, Applicant submits that no combination of Baudisch and Taniguchi could produce the display apparatus of claim 1.

Also, the Examiner states on page 2 of the FINAL Office Action that Baudisch discloses “*means for extracting content information from the visual content signal (280, image fork).*” Then, contradicting this statement, on page 3 of the FINAL Office Action the Examiner states that “**Baudisch fails to disclose background content information from the visual content information.**” Also, on page 9 of the FINAL Office Action the Examiner states that “**image fork 280 does not extract any content information from the image.**”

Applicant agrees with the latter two statements and respectfully submits that Baudisch does not disclose means for extracting background content information from a visual content signal presented on a primary display. Element 280 in Baudisch is an image fork. Image fork 280 replicates the image and provides the multiple images to separate viewers 260 which scale and crop the image to provide the appropriate data for viewing a corresponding portion of the total image on a corresponding display 290. Image fork 280 does not extract any content information from the image.

The Examiner also states that image processor 255 generates an image in response to content information. Applicant respectfully submits that image processor 255 merely generates a scaled and cropped image in response to video data. Applicant respectfully submits that image processor 255 does not generate any surround image from any extracted content information. Indeed, Applicant respectfully submits that image processor 255 is not concerned with **content**

information.

Meanwhile, as noted in the FINAL Office Action on page 9, the cited text at col. 12, line 50 – col. 13, line 41 of Taniguchi discloses dividing an input image into a gazing point portion and a background portion. However, as explained above, it does not disclose any means for extracting background content information from the visual content signal that is presented on a primary display. Also, as explained above, Taniguchi does not disclose, and is not concerned with, generating any surround image from any extracted content information. As admitted by the Office Action on page 9, Taniguchi discloses **dividing** an input image. This stands in contrast to the apparatus of claim 1 that generates **a surround image** from content information that is extracted from a visual content signal that is displayed on a primary display, so that the surround image can be displayed on a secondary display to provide a combined display having an increased viewing angle.

So, again, Applicant respectfully submits that no combination of Baudisch and Taniguchi could ever produce the apparatus of claim 1.

Applicant also respectfully traverses the proposed combination of Baudisch and Taniguchi.

At the outset, Applicant respectfully submits that the Examiner fails to establish the level of ordinary skill in the art of invention of claim 1. This is a fundamental requirement for maintaining a rejection under 35 U.S.C. § 103. See M.P.E.P. §§ 2141(II)(C) and 2141.03. Thus, the Examiner fails to perform the analysis required by KSR International Co. v. Teleflex Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007) (“KSR”) for rejecting a claim under 35 U.S.C. § 103. Accordingly, the Examiner has failed to make a *prima facie* case for combining Baudisch and Taniguchi.

Furthermore, a rejection on obviousness grounds under 35 U.S.C. § 103 cannot be sustained by mere conclusory statements: instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. See M.P.E.P. § 2142 (quoting In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) and KSR 82 USPQ2d at 1396 (2007) (quoting Federal Circuit statement with approval)).

Here, the rejection is supported only by conclusory statements. The Examiner fails to articulate reasons with rational underpinnings for the proposed modifications. In particular, the Examiner fails to explain how or why the proposed combination of Baudisch and Taniguchi to extract background content information from a visual display signal would “*display depth in a display and wide angel (sic) viewing without restrictions*” or why this would have been recognized by one of skill in the art at the time the invention was made without reference to the teachings in Applicant’s specification. Indeed, it is unclear to Applicant what that even is supposed to mean. Regardless, no evidence is offered at all in support of this conclusory statement.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 1 is patentable over the cited art and respectfully requests that the rejection of claim 1 be overturned and that claim 1 receive an early allowance.

Claims 2-6 and 9-14

Claims 2-6 and 9-14 all depend from claim 1 and are deemed patentable for at least the reasons set forth above with respect to claim 1, and for various other novel features recited therein.

Applicant also traverses all of the proposed combinations of Baudisch and Taniguchi in claims 5-6 and 9-13 for at least the reasons that **the Examiner fails to articulate any rationales of the various proposed combinations**, and furthermore because the Examiner fails to establish the level of ordinary skill in the art of invention. Thus the Examiner fails to make a *prima facie* case for rejecting any of these claims.

Applicant also respectfully submits that each of the following claims is patentable over the cited art for at least the following additional reasons.

Claim 5

With respect to claim 5, Applicant respectfully submits that nothing in col. 11, lines 4-7 of Taniguchi discloses extracting background content information in response to background meta-data in a visual content signal.

In response to this, on page 11 of the FINAL Office Action, **for the first time** the Examiner now alleges that this feature is **inherent** in Taniguchi.

Applicant respectfully traverses the allegation of inherency.

M.P.E.P. § 2112(IV) establishes the standard an Examiner must meet to support an argument of inherency.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’ ” In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)

Applicant respectfully submits that the Examiner has failed to meet this standard. The Examiner has failed to show that Taniguchi MUST extract background content information in response to background meta-data in a visual content signal. Indeed, the Examiner has failed to even establish that Taniguchi’s data even includes any background meta-data. Applicant respectfully believes that the Board will easily see that the rejection of claim 5 based on inherency is clearly in error and must be overturned.

Claim 6

With respect to claim 6, Applicant respectfully submits that nothing in FIGs. 13A-C of Taniguchi discloses extracting background content information in response to a content analysis of the visual content signal presented on the primary display.

Claim 9

With respect to claim 9, Applicant respectfully submits that Taniguchi does not disclose in col. 12, lines 8-35 that background content information comprises **a visual characteristic** of an image section of the visual content signal proximal to an edge of the primary display; that means for generating a surround image is operable **to generate at least a partial surround image having a corresponding visual characteristic**; and that means for displaying the surround image is operable to display the partial surround image proximal to the edge. It appears that the cited text makes no mention of any visual characteristics or of any surround images.

Claim 10

The cited text at col. 13, lines 52-57 of Taniguchi discusses displaying the gazing point portion image that is provided by gazing point portion image generation unit 50-2 to drive circuit 29 for primary display 13 / 13'. The text discloses that when a portion of the gazing point image is not included in the foreground image, then that portion is detected and the corresponding pixels are displayed black by primary display 13 / 13'.

The cited text does not mention any predetermined images associated with the background content information. The cited text does not disclose generating a surround image. The cited text does not disclose generating a surround image in response to a predetermined default image if no valid background content information is determined. The cited text does not disclose the features of claim 10.

Claim 11

The cited text at col. 13, lines 55-57 of Taniguchi discloses that when a portion of the gazing point image is not included in the foreground image, then that portion is detected and the corresponding pixels are displayed black by primary display 13 / 13'.

The cited text does not mention any predetermined default image. The cited text does not mention determination whether there is any valid background content information. The cited text does not disclose generating a surround image in response to a predetermined default image if no valid background content

information is determined. The cited text does not disclose the features of claim 11.

Claim 16

Among other things, the method of claim 16 includes extracting background content information from the visual content signal that is presented on a primary display, and generating a surround image in response to the extracted background content information.

For similar reasons to those set forth above with respect to claim 1, Applicant respectfully submits that no combination of Baudisch and Taniguchi would produce any method including this combination of features, and also respectfully traverses the proposed combination of Baudisch and Taniguchi.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 16 is patentable over the cited art and respectfully requests that the rejection of claim 16 be overturned and that claim 16 receive an early allowance.

Claim 20

Claim 20 depends from claim 16 and is deemed patentable for at least the reasons set forth above with respect to claim 16, and for the following additional reasons.

Among other things, the method of claim 20 includes storing a plurality of images corresponding to a plurality of background content characteristics, and generating a surround image in response to the background content information includes selecting one of the stored images in response to the extracted background content information.

The Examiner admits that Baudisch does not disclose these features.

The Examiner then goes on to discuss all sorts of things that Taniguchi discloses . . . gazing point portions, dividing an image into a foreground portion and a background portion, persons *a* and *b* However, the Examiner fails to cite anything in Taniguchi that discloses: (1) storing a plurality of images corresponding to a plurality of background content characteristics, and (2) that generating a surround image in response to the background content information includes selecting one of the stored images in response to the extracted background content information.

Also regarding the Examiner's statement of inherency, to the extent that it is

even relevant to the features actually recited in claim 20, Applicant traverses any allegation of inherency. Indeed, the Examiner's use of "*my*" (sic – may?) on page 6, line 19 of the FINAL Office Action trumps any suggestion that these features **MUST** be present in Taniguchi – which as explained above with respect to claim 5 is the *sine qua non* for any inherency rejection.

Claim 19

Among other things, the system of claim 19 includes an extraction processor for extracting background content information from a visual content signal; and a second display processor for generating a surround image in response to the extracted background content information, wherein a combination of the image and the surround image provide a greater viewing angle than the image alone.

The Examiner cites element 240 in Baudisch as supposedly corresponding to an extraction processor, based on the teachings of Taniguchi.

However, element 240 in Baudisch is an image processor which sends the image to the image fork 280. If element 240 extracted background information and sent that to image fork 280, it does seem that image fork 280 would not be able to produce the entire image, but only a background image. This would defeat a fundamental purpose of Baudisch's system.

Furthermore, as explained above, neither Baudisch nor Taniguchi disclose creating and displaying a surround image. Instead, they are concerned with splitting an image into a high resolution portion for a first display, and a lower resolution portion for a second display. So no combination of Baudisch and Taniguchi would produce an apparatus that creates a surround image.

Applicant also respectfully traverses the proposed combination of Baudisch and Taniguchi for at least the reasons set forth above with respect to claim 1.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 19 is patentable over the cited art and respectfully requests that the rejection of claim 19 be overturned and that claim 19 receive an early allowance.

Claims 21-22

Claims 21-22 depend from claim 19 and are deemed patentable for at least the reasons set forth above with respect to claim 19, and for the following additional

reasons.

Claim 21

Among other things, the system of claim 21 stores a plurality of images corresponding to a plurality of background content characteristics, and wherein the second display processor selects one of the stored images in response to the extracted background content information and generates the surround image from the selected stored image.

For similar reasons to those set forth above with respect to claim 19, Applicant respectfully traverses the rejection of claim 21 and submits that the no combination of Baudisch and Taniguchi would produce a system including this combination of features.

Claim 22

Among other things, the system of claim 22 stores a plurality of images corresponding to a plurality of background content characteristics, and wherein the second display processor selects at least two of the stored images in response to the extracted background content information and generates the surround image from the at least two selected stored images.

For similar reasons to those set forth above with respect to claim 19, Applicant respectfully traverses the rejection of claim 22 and submits that the no combination of Baudisch and Taniguchi would produce a system including this combination of features.

Therefore, for at least these reasons, Applicant respectfully requests that the rejections of claims 1-6, 9-14, 16 and 19-22 be overturned and that claims 2-6, 9-14, 16 and 19-22 receive an early allowance.

(2) Claims 7, 8 and 15 are Patentable over Baudisch, Taniguchi & Witehira

Claims 7, 8 and 15 all depend from claim 1. Applicant respectfully submits that Witehira does not remedy the deficiencies of Baudisch and Taniguchi as set forth above with respect to claim 1. Therefore Applicant respectfully submits that claims 7, 8 and 15 are all patentable over the cited art for at least the reasons set forth above

with respect to claim 1.

Applicant also respectfully traverses the proposed combinations of Baudisch, Taniguchi and Witehira with respect to claims 7, 8 and 15. Again, as explained with respect to claim 1, the Examiner fails to establish the level of ordinary skill in the art of invention.

Claim 7

Furthermore, the proposed combination of references with respect to claim 7 is supported only by conclusory statements. The Examiner fails to articulate reasons with rational underpinnings for the proposed modification of Baudisch and Taniguchi to include the feature of claim 7. In particular, the Examiner fails to explain how or why the proposed combination of Baudisch and Taniguchi with Witehira would “provide specific important focus objects in the increased display area for a user to gaze upon,” or why this would even be desirable in Baudisch’s system, or why this would have been recognized by one of skill in the art at the time the invention was made.

Furthermore, for claims 8 and 15 the Examiner fails to articulate any rationales of the proposed combinations and therefore fails to make a *prima facie* case for the proposed combination.

Claim 8

With respect to claim 8, Applicant respectfully submits that Witehira does not teach generating a surround image in response to a motion estimation in a visual content signal displayed on a primary display.

Claim 15

With respect to claim 8, Applicant respectfully submits that Witehira does not teach a category of the visual content signal, wherein the means for generating the surround image is operable to generate the surround image processing in response to the category. In that regard, for example, “pixel color” and “pixel motion” are not **categories** of a visual content signal – they are characteristics.

Accordingly, for at least these reasons, Applicant respectfully submits that claims 7, 8 and 15 are patentable over the cited art, and respectfully requests that the rejections of claims 7, 8 and 15 be withdrawn and that claims 7, 8 and 15 receive

an early allowance.

In conclusion, for at least all of the foregoing reasons Applicant respectfully submits that claims 1-16 and 19-22 are all patentable over the cited prior art. Therefore, Applicant respectfully requests that the rejections of claims 1-16 and 19-22 be overturned, that claims 1-16 and 19-22 be allowed, and the application be passed to issue.

Respectfully submitted,

VOLENTINE & WHITT

By: /Kenneth D. Springer/
Kenneth D. Springer
Registration No. 39,843

VOLENTINE & WHITT
11951 Freedom Drive, Suite 1260
Reston, Virginia 20190
Telephone No.: (571) 283-0724
Facsimile No.: (571) 283-0740

CLAIMS APPENDIX

1. (Previously Presented) A visual content signal display apparatus comprising:
 - means for receiving a visual content signal;
 - means for presenting the visual content signal on a primary display;
 - means for extracting background content information from the visual content signal;
 - means for generating a surround image in response to the background content information; and
 - means for displaying the surround image on a secondary display area thereby providing a combined display having an increased viewing angle.
2. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for displaying the surround image is operable to project the surround image on to an external surface of an object.
3. (Previously Presented) The visual content signal display apparatus of claim 2 wherein the external surface is an internal surface of a room.
4. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for extracting is operable to extract real time background content information from the visual content signal, and the means for generating the surround image is operable to generate a real time surround image in response to the real time background content information.
5. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for extracting is operable to extract the background content information in response to background meta-data comprised in the visual content signal.

6. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for extracting is operable to extract the background content information in response to a content analysis of the visual content signal.

7. (Previously Presented) The visual content signal display apparatus of claim 6 wherein the content analysis comprises image object recognition.

8. (Previously Presented) The visual content signal display apparatus of claim 7 wherein the means for generating a surround image is operable to perform motion estimation of an image object and to generate the surround image in response to the motion estimation.

9. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the background content information comprises a visual characteristic of an image section of the visual content signal proximal to an edge of the primary display; the means for generating the surround image is operable to generate at least a partial surround image having a corresponding visual characteristic; and the means for displaying the surround image is operable to display the partial surround image proximal to the edge.

10. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for generating a surround image is operable to generate the surround image in response to a predetermined image associated with the background content information.

11. (Previously Presented) The visual content signal display apparatus of claim 10 wherein the means for generating the surround image is operable to generate the surround image in response to a predetermined default image if no valid background content information is determined.

12. (Previously Presented) The visual content signal display apparatus of

claim 1 wherein the means for generating the surround image is operable to generate the surround image at a lower quality than a quality of the display of the content signal on the primary display.

13. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for generating the surround image is operable to generate the surround image with a quality that decreases for increasing distance from the primary display.

14. (Previously Presented) The visual content signal display apparatus of claim 1 wherein the means for generating the surround image is operable to generate the surround image in response to characteristics of a viewing environment associated with the secondary display area.

15. (Previously Presented) The visual content signal display apparatus of claim 1 further comprising means for determining a category of the visual content signal and wherein the means for generating the surround image is operable to generate the surround image processing in response to the category.

16. (Previously Presented) A method of displaying a visual content signal with a visual content display apparatus, the method comprising:

- receiving a visual content signal with a receiver of the apparatus;
- presenting the visual content signal on a primary display;
- extracting background content information from the visual content signal with an extraction processor of the apparatus;
- generating a surround image in response to the background content information with a secondary display processor of the apparatus; and
- displaying the surround image on a secondary display area thereby providing a combined display having an increased viewing angle.

19. (Previously Presented) A system comprising:

- a receiver for receiving a visual content signal;
- a primary display processor for processing the visual content signal and for providing an image for display on a primary display;
- an extraction processor for extracting background content information from the visual content signal;
- a second display processor for generating a surround image in response to the extracted background content information; and
- a secondary display for displaying the surround image on a secondary display area surrounding the primary display,

wherein a combination of the image and the surround image provide a greater viewing angle than the image alone.

20. (Previously Presented) The method of claim 16, further comprising storing a plurality of images corresponding to a plurality of background content characteristics, and wherein generating a surround image in response to the background content information includes selecting one of the stored images in response to the extracted background content information.

21. (Previously Presented) The system of claim 19, wherein the system stores a plurality of images corresponding to a plurality of background content characteristics, and wherein the second display processor selects one of the stored images in response to the extracted background content information and generates the surround image from the selected stored image.

22. (Previously Presented) The system of claim 19, wherein the system stores a plurality of images corresponding to a plurality of background content characteristics, and wherein the second display processor selects at least two of the stored images in response to the extracted background content information and generates the surround image from the at least two selected stored images.

EVIDENCE APPENDIX

{None}

RELATED PROCEEDINGS APPENDIX

{None}